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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,650	08/07/2006	Claus Dworski	1431.144.101/FIN 503 PCT/	9691
25281 7590 05/26/2009 DICKE, BILLIG & CZAJA FIFTH STREET TOWERS 100 SOUTH FIFTH STREET, SUITE 2250 MINNEAPOLIS, MN 55402			EXAMINER NGHIEM, MICHAEL P	
			ART UNIT 2863	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,650	<b>Applicant(s)</b> DWORSKI ET AL.	
	<b>Examiner</b> MICHAEL P. NGHIEM	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 33-64 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 54-64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-37 is/are rejected.
- 7) ☒ Claim(s) 38-45 and 47-53 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1-25-07, 8-7-06, 2-27-06, 1-13-06</u>                         | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group I, Species I, claims 33-45 and 47-53, in the reply filed on April 23, 2009 is acknowledged.

Claims 46 and 54-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I, Species II and Group II, there being no allowable generic or linking claim.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 34, "the measuring device is configured to generate ... outputting the difference signal or the quality parameter" is not described in the specification.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the measuring device

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... generate a difference signal by subtracting the reference signal from the test signal" (claim 33) and a control loop circuit (claim 38) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 34-45 are objected to because of the following informalities:

- claim 34, after "generate" (line 2) should delete "that".

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- claim 38, "is" (line 5, first instance) should be – are --.
- claims 34-45, "comprising" (line 1) should be deleted.
- claim 43, "is" (lines 3, 5) should be – are --.

Appropriate correction is required.

Claims 47-53 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims 47-53 have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP

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§ 2172.01. The omitted structural cooperative relationships are: there are no relationships between the second input and other claimed inputs/elements.

The following lacks antecedent basis:

- claim 33, the deviation, the amplitude, the phase of the reference signal.
- claim 36, the quality parameter or parameters.
- claim 37, the quality parameter, the ratio, the signal, the noise component, the total unadjusted error, the total adjusted error.
- claim 38, the deviation of the test signal, the difference values, this aggregate difference value.
- claim 39, the amplitude of the reference signal, the amplitude of the test signal, the absolute value of the deviation-corrected test signal, the aggregate absolute value, the deviation-corrected test signal.
- claim 40, the phase of the reference signal, the phase of the test signal.
- claim 43, the squares, the amounts, the difference values, the deviation-corrected test signal, the amplitude- and phase-corrected reference signal, the minimum and maximum values.
- claim 44, the standard deviation, the square, the amounts, the difference values, the deviation-corrected test signal, the amplitude- and phase-corrected reference signal, the minimum value, the maximum value.
- claim 45, the phase, the minimum, the standard deviation, the phase displacement circuit.

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 33-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Adler et al. (US 6,781,398).

Regarding claim 33, Adler et al. discloses an electrical test circuit (12) for testing integrated circuits (11's; column 3, lines 49-51), the electrical test circuit comprising:

a first input (22) configured for receiving a test signal (signal from 11) of an integrated circuit (11);

a second input (input to 30), configured for receiving a control signal (30);

a third input (18) configured to receive a normalized reference signal (reference signal from 10), particularly one that is formed to be synchronous with the test signal (since 18 is compared with 22 at comparator 14, Fig. 1, the signals inherently have to be synchronous with each other);

a control device (10) configured such that the deviation or the amplitude or the phase of the reference signal is or, respectively, are changed;

a measuring device (14) configured to generate a difference signal (output of 14) by subtracting the reference signal from the test signal (Fig. 1); and

an output for outputting the difference signal (Fig. 1).

Furthermore, regarding claim 33, the recitation of dynamic A/D converters has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Regarding claim 34, Adler et al. discloses the measuring device (14) is configured to generate that at least one quality parameter (Fail 1, Fig. 1) from the difference signal (Fig. 1), the output being intended for outputting the difference signal (output of 14).



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Regarding claim 35, Adler et al. discloses the quality parameters are the deviation of the test signal (see Fail 1 output from comparator 14, Fig. 1; Abstract, lines 5-8).

Regarding claim 36, Adler et al. discloses the test signal, the reference signal, the difference signal and the quality parameter or parameters (e.g., amplitudes of signals are inherent with signals) are present in digital form (programmable drivers connected to reference and test signal inputs, column 4, lines 15-25; difference signal stored in memory 26, Fig. 1).

Regarding claim 37, Adler et al. discloses from the difference signal the total unadjusted error (38) of the test signal is calculated (Fig. 1).

### ***Allowable Subject Matter***

Claims 38-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Reasons For Allowance***

The **combination** as claimed wherein an electrical test circuit comprising a control device comprising a control loop circuit which is provided for adapting the

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deviation of the test signal, the control loop circuit being configured in such a manner that a deviation-corrected test signal is generated in that the difference values between the deviation of the test signal and of the reference signal is added together and in that the test signal is corrected by addition with this aggregate difference value (claim 38) or the control device comprises an amplitude correction circuit for matching the amplitude of the reference signal to the amplitude of the test signal, the amplitude correction circuit being configured in such a manner that an amplitude-corrected reference signal is generated in that the absolute value of the deviation-corrected test signal is determined and added together by the amplitude correction circuit and in that the reference signal is corrected with the aggregate absolute value of the deviation-corrected test signal (claim 39) or the control device comprises a phase displacement circuit, the phase displacement circuit being configured in such a manner that the phase of the reference signal is matched to the phase of the test signal (claim 40) or the squares of the amounts of the difference values between the deviation-corrected test signal and the amplitude- and phase-corrected reference signal is added together by the measuring device or the minimum and maximum values of the difference values between the deviation-corrected test signal and the amplitude- and phase-corrected reference signal is stored by the measuring device (claim 43) is not disclosed, suggested, or made obvious by the prior art of record.

***Contact Information***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael P. Nghiem/

Primary Examiner, GAU 2863

May 19, 2009